

Claims

1. A method of operating an oscilloscope that is capable of displaying simultaneously multiple waveforms representing time evolution of a signal during respective acquisition intervals, comprising:

(a) acquiring waveform data using a first set of acquisition parameters,
(b) generating a display based on the waveform data acquired in step (a),
in the event that the display generated in step (b) includes a waveform that is visually distinct from other displayed waveforms,

(c) selecting a feature that distinguishes the visually distinct waveform from other displayed waveforms,

(d) automatically deriving acquisition parameters that discriminate between the selected feature and other features of the displayed waveforms,

(e) acquiring waveform data using the acquisition parameters derived in step (d), and

(f) generating a display based on the waveform data acquired in step (e).

2. A method according to claim 1, wherein step (c) includes graphically defining a template that specifies the selected feature and step (d) includes employing information regarding the template to derive said additional acquisition parameters.

3. A method according to claim 1, wherein the oscilloscope has multiple trigger modes, step (c) includes graphically defining a template that specifies the selected feature and step (d) includes employing information regarding the template to select a trigger mode for preferentially acquiring waveforms that include the selected feature.

4. A method according to claim 3, wherein the template is a scaleable rectangular box and step (c) includes

positioning and sizing the box so that it contains the selected feature.

5 5. A method according to claim 2, wherein the oscilloscope has a display screen on which the waveforms are displayed and the template is a sketch generated on the display screen.

10 6. An oscilloscope that is capable of displaying simultaneously multiple waveforms representing time evolution of a signal during respective acquisition intervals, said oscilloscope comprising:

 an acquisition means for acquiring waveform data using a first set of acquisition parameters,

15 a display means for generating a display based on the waveform data acquired by the acquisition means,

 a user control means that can be used in the event that the display generated by the display means includes a waveform that is visually distinct from other displayed waveforms to select a feature that distinguishes the visually distinct waveform from other displayed waveforms, and

20 an oscilloscope control means for automatically deriving acquisition parameters that discriminate between the selected feature and other features of the displayed waveforms, and for supplying the derived acquisition parameters to the acquisition means, whereby the acquisition means can acquire waveform data using the derived acquisition parameters and the display means can generate a display based on the waveform data acquired by the
25 acquisition means using the derived acquisition parameters.